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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,512	08/23/2003	James J. deBlanc	200206166-1	9663

22879 7590 09/01/2005

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FORT COLLINS, CO 80527-2400

EXAMINER

ULLAH, AKM E

ART UNIT PAPER NUMBER

2874

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/646,512

Applicant(s)

DEBLANC ET AL.

Examiner

Akm Enayet Ullah

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 20-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/23/03 &amp; 7/19/05</u> . | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

*Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.*

Claims 1-30 are ending in this application.

In response to the office action, dated January 14, 2005 applicant elected Group II, claims 20-30 for the examining purpose. Thus, claims 1-19 withdrawn from examination purpose.

Claims 20-30 are rejected.

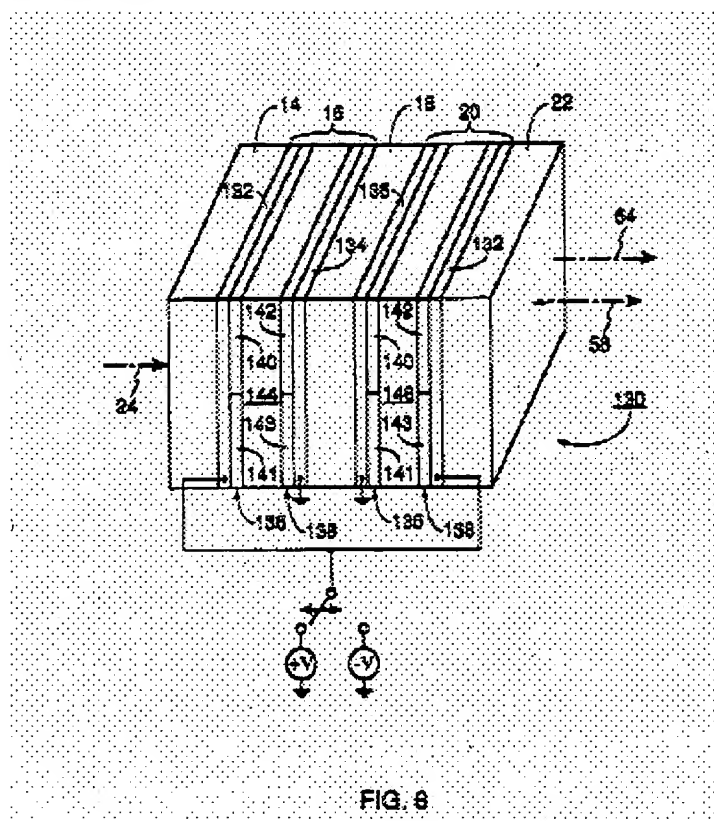
**35 USC 103 Rejections**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 - 30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Patel et al (U.S.P.NO. 5,414,541(in view of Thackara (USP NO. 2002/0041726 A1).

Patel disclose an optical switch device comprising a first planar layer, a second planar layer and a plurality of optical switch wherein the optical switches permit optically coupling any optical path of the first planar layer with any optical path of the second planar layer. The optical switch array is a liquid crystal optical switch.



Reproduced From USP NO. 5,414,541

Figure 6 of Patel clearly shows the instant invention.

Patel fails to disclose the first & second planar layers are arranged so that each of the  $m$  optical paths crosses each of the  $n$  optical paths to form a plurality ( $m.n$ ) of crossing points, as claimed.

The use of such ( $m.n$ ) crossing points are very elementary teachings in this art as is shown by Thackara.

Thackara is the evidence that ordinary skill in the art would find a reason, suggestion or motivation to have a ( $m.n$ ) crossing points as claimed in the optical switch array device.

One of ordinary skill in the art would have found it obvious to use the optical switch device a ( $m.n$ ) crossing points of Thackara in Patel since, the liquid crystal switch of the invention can be configured for more specialized uses, for example, where multiple parallel channels are switched a selected number of channels to one side or the other.

#### **Citation Of Relevant Prior Art**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parker, Eldada and Erman et al are also cited to show a typical optical switch array using liquid crystal respectively.

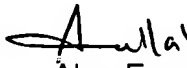
#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akm Enayet Ullah whose telephone number is 571-272-2361. The examiner can normally be reached on Mon.- Wednesday 5:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
Akm Enayet Ullah  
Primary Examiner  
Art Unit 2874

AUllah  
August 24, 2005